

48. A method of diagnosing a pathology characterized by an increased or decreased level of a DD, DED or NB-ARC domain in a subject, comprising the steps of:

- 5 a) contacting a test sample from said subject with an agent that can bind said DD, DED or NB-ARC domain under suitable conditions, which allow specific binding of said agent to said DD, DED or NB-ARC domain; and
- 10 b) comparing the amount of said specific binding in said test sample with the amount of specific binding in a control sample, wherein an increased or decreased amount of said specific binding in said test sample as compared to said control sample is diagnostic of a pathology,
- 15 and wherein said DD, DED, or NB-ARC domain is from DAP3, IRAK4, CTDD, DED4 or NIDD.

49. The method of claim 48, wherein said agent is an anti-DD, anti-DED, or anti-NB-ARC domain antibody, FADD, caspase-8, caspase-10, DR4, DR5, Traf6, hToll, MyD88 Fas, 20 Raidd, IRAK, IRAK-2, IRAK-M, p75NTR, Tradd, DAP kinase, RIP, NMP84, ankyrins, Flip, PEA15, Flash, BAP31, BAR, DEDT/DEDD, CTDD, or DAP3.

**EXHIBIT 1**

33. The method of claim 30, wherein said altered association is detected by measuring the activity of caspase-8.

34. The method of claim 30, wherein said effective agent is a drug.

35. The method of claim 30, wherein said effective agent is a protein.

36. A method of modulating a cell process comprising contacting a cell with an effective amount of an agent identified by the method of claim 30 that modulates the activity of a DD-, DED-, or NB-ARC domain, wherein said cell process is selected from the group consisting of apoptosis, cell proliferation, cell adhesion, cell stress responses, responses to microbial infection, and B cell immunoglobulin class switching.

37. The method of claim 36, where the cell process is apoptosis.

38. A method for modulating an activity mediated by a DD, DED or NB-ARC domain, said method comprising contacting said DD, DED or NB-ARC domain with an effective amount of an agent identified by claim 30.

39. The method of claim 38, wherein said modulated activity is selected from the group consisting of: binding of a DD, DED or NB-ARC domain protein to a protein that binds a DD, DED or NB-ARC domain, NF- $\kappa$ B activity, caspase activity, apoptosis activity, cell proliferation activity, cell adhesion, cell stress response activity, responses to microbial infection activity, and B cell immunoglobulin class switching activity.

40. The method of claim 39, where the modulated activity is apoptosis activity.

41. A method of modulating the activity of NF- $\kappa$ B comprising contacting a cell with an effective amount of an agent identified by claim 30 that modulates the activity of a DD-containing or NB-ARC domain.

42. A method of modulating the activity of a caspase comprising contacting a cell with an effective amount of an agent identified by claim 30 that modulates the activity of a DD-, DED-, or NB-ARC domain.

43. A method of modulating the level of a cell process within a cell, comprising the steps of:

- a) introducing a nucleic acid molecule encoding a DD, DED or NB-ARC domain into the cell; and
- b) expressing said DD, DED or NB-ARC domain in said cell, wherein the expression of said DD, DED or NB-ARC domain modulates a cell process within said cell,

wherein said DD, DED, or NB-ARC domain is from DAP3, IRAK4, CTDD, DED4 or NIDD, and wherein said cell process is selected from the group consisting of apoptosis, cell proliferation, cell adhesion, cell stress responses, responses to microbial infection, and B cell immunoglobulin class switching.

44. The method of claim 43, where the cell process is apoptosis.

45. A method of modulating a cell process within a cell, comprising introducing into a cell an antisense nucleotide sequence that specifically hybridizes to a nucleic acid molecule encoding a DD, DED or NB-ARC domain from DAP3, IRAK4, CTDD, DED4 or NIDD, wherein said hybridization reduces or inhibits the expression of said DD, DED or NB-ARC domain in said cell, and wherein said cell process is selected from the group consisting of apoptosis,

cell proliferation, cell adhesion, cell stress responses, responses to microbial infection, and B cell immunoglobulin class switching.

46. The method of claim 45, where the cell process is apoptosis.

47. A method of modulating a cell process comprising contacting a cell with a compound selected from the group consisting of: a DD, DED or NB-ARC domain or functional fragment thereof, an agent identified according to claim 30, and an anti-DD, anti-DED or anti-NB-ARC domain antibody wherein said DD, DED, or NB-ARC domain is from DAP3, IRAK4, DED4 or NIDD.

48. A method of diagnosing a pathology characterized by an increased or decreased level of a DD, DED or NB-ARC domain in a subject, comprising the steps of:

- a) contacting a test sample from said subject with an agent that can bind said DD, DED or NB-ARC domain under suitable conditions, which allow specific binding of said agent to said DD, DED or NB-ARC domain; and
- b) comparing the amount of said specific binding in said test sample with the amount of specific binding in a control sample, wherein an increased or decreased amount of said specific binding in said test sample as compared to said control sample is diagnostic of a pathology,

and wherein said DD, DED, or NB-ARC domain is from DAP3, IRAK4, CTDD, DED4 or NIDD.

49. The method of claim 48, wherein said agent is an anti-DD, anti-DED, or anti-NB-ARC domain antibody, FADD, caspase-8, caspase-10, DR4, DR5, Traf6, hToll, MyD88, Fas, Radd, IRAK, IRAK-2, IRAK-M, p75NTR, Tradd, DAP kinase, RIP, NMP84, ankyrins, Flip, ~~PEA15~~, Flash, BAP31, BAR, DEDT/DEDD, CTDD, or DAP3.

50. A method of diagnosing a pathology characterized by an increased or decreased level of a DD, DED or NB-ARC domain in a subject, comprising the steps of:

- a) contacting a test sample containing nucleic acid molecules from said subject with an oligonucleotide according to claim 20 wherein said contacting is effected under high stringency hybridization conditions, and b) comparing the amount of specific binding in said test sample with the amount of specific binding in a control sample, wherein an increased or decreased amount of said specific binding in said test sample as compared to said control sample is diagnostic of a pathology,

and wherein said DD, DED, or NB-ARC domain is from DAP3, IRAK4, CTDD, DED4 or NIDD.

51. A method of detecting a Chlamydia infection, comprising contacting a test sample from a subject with an antibody specifically reactive with a peptide or polypeptide consisting of any of SEQ ID NOS: 10, 20, 53, 56 or 58, wherein binding of said sample to said antibody indicates that said subject has a Chlamydia infection.

52. A method of detecting a Chlamydia infection, comprising contacting a nucleic acid containing test sample from a subject with a nucleic acid molecule encoding any of SEQ ID NOS: 10, 20, 53, 56, or 58, wherein said contacting is effected under high stringency hybridization conditions, and wherein binding of said sample with said nucleic acid molecule indicates that said subject has a Chlamydia infection.

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